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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,789	04/25/2005	Yasuhide Kusaka	10921.310USWO	6474

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HAMRE, SCHUMANN, MUELLER & LARSON, P.C.
P.O. BOX 2902
MINNEAPOLIS, MN 55402-0902

EXAMINER

KAFIMOSAVI, HOSEIN

ART UNIT	PAPER NUMBER
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4132

MAIL DATE	DELIVERY MODE
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06/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,789

Applicant(s)

KUSAKA ET AL.

Examiner

HOSEIN KAFIMOSAVI

Art Unit

4132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date 04/25/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species A reading upon claims 1-8 in the reply filed on April 25, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikeda et al (US 5,985,116).

As to claim 1, Ikeda discloses an analytical tool comprising a substrate (1), a capillary which is formed on the substrate (11) and a liquid movement preventer (4, 5, 6) provided with the substrate (Fig. 2; Column 3, lines 34-36).

As to claim 2, Ikeda discloses the analytical tool above, wherein the liquid movement preventer includes a stepped portion (4, 5, 6) projecting from the substrate (Fig. 2; Column 3, lines 34-36).

As to claim 3, Ikeda discloses the analytical tool above, wherein the stepped portion comprises a conductive layer (4 or 5) formed on the substrate and an insulating layer (6) covering the conductive layer (Fig. 2; Column 3, lines 34-36).

As to claim 4, Ikeda discloses the analytical tool above, further comprising a plurality of electrodes (2, 3) provided on the substrate (Fig. 2; Column 3, lines 11-14).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al (US 5,985,116) as applied to claim 1 above, and further in view of Carter et al (US 5,628,890).

As to claim 5, Ikeda discloses the analytical tool above wherein the substrate is provided with a stepped portion comprising of a conductive layer (4 or 5) formed on the substrate and an insulating layer (6) covering the conductive layer (Fig. 2; Column 3, lines 34-36). However, Ikeda does not disclose that the conductive layer is formed as a dummy electrode.

Carter discloses an analytical tool comprising a substrate (1), a capillary (12) and a liquid movement preventer comprising a conductive layer (2) formed on the substrate and an insulating layer (7) covering the conductive layer wherein the conductive layer is formed as a dummy electrode (5a) (Fig 1; Column 3, lines 40-60 and Column 5, lines 33-35).

It would have been obvious to one with ordinary skill in the art at the time of the invention to have the conductive layer of Ikeda to be formed as a dummy electrode as taught by Carter, because it will physically define the working/reference electrode area while minimizing the sample volume that must be used (Carter at Column 4, lines 25-27).

As to claim 6, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113). However, Ikeda, as modified in view of Carter, discloses the analytical tool above, wherein the dummy electrode (5a) is formed simultaneously with

the plurality of electrodes by the process of screen printing (Carter at Column 3, lines 41-46).

As to claim 7, Ikeda, as modified in view of Carter, discloses the analytical tool above, wherein the plurality of electrodes include a detection electrode (2) and wherein the conductive layer is provided by the detection electrode (Ikeda at Column 3, lines 40-60 and Column 5, lines 33-35).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al (US 5,985,116) as applied to claim 1 above.

As to claim 8, Ikeda discloses the analytical tool above, further comprising an air vent (10) wherein the insulating layer (6) includes an opening which exposes part of the electrodes and which extends along the capillary (Column 3, lines 54-58).

Ikeda does not disclose however, wherein as viewed in a thickness direction of the substrate, a most downstream point of the opening in a flow direction of the sample liquid is located on a same line or almost same line as a most upstream point of the air vent in the flow direction of the sample liquid.

It would have been obvious to one with ordinary skill in the art at the time of the invention to have the insulating layer (6) of Ikeda properly adjusted and configured in order to prevent the reaction layer to spread over the electrical leads while at the same time allowing the air to escape through the air vent (Column 5, lines 24-26).

Contacts/Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOSEIN KAFIMOSAVI whose telephone number is (571)270-5271. The examiner can normally be reached on Mon - Fri, 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica Ward can be reached on (571) 272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. K./
Examiner, Art Unit 4132

/Jessica L. Ward/
Supervisory Patent Examiner, Art Unit 4132